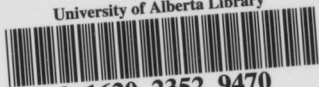


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# Nor' West Miner

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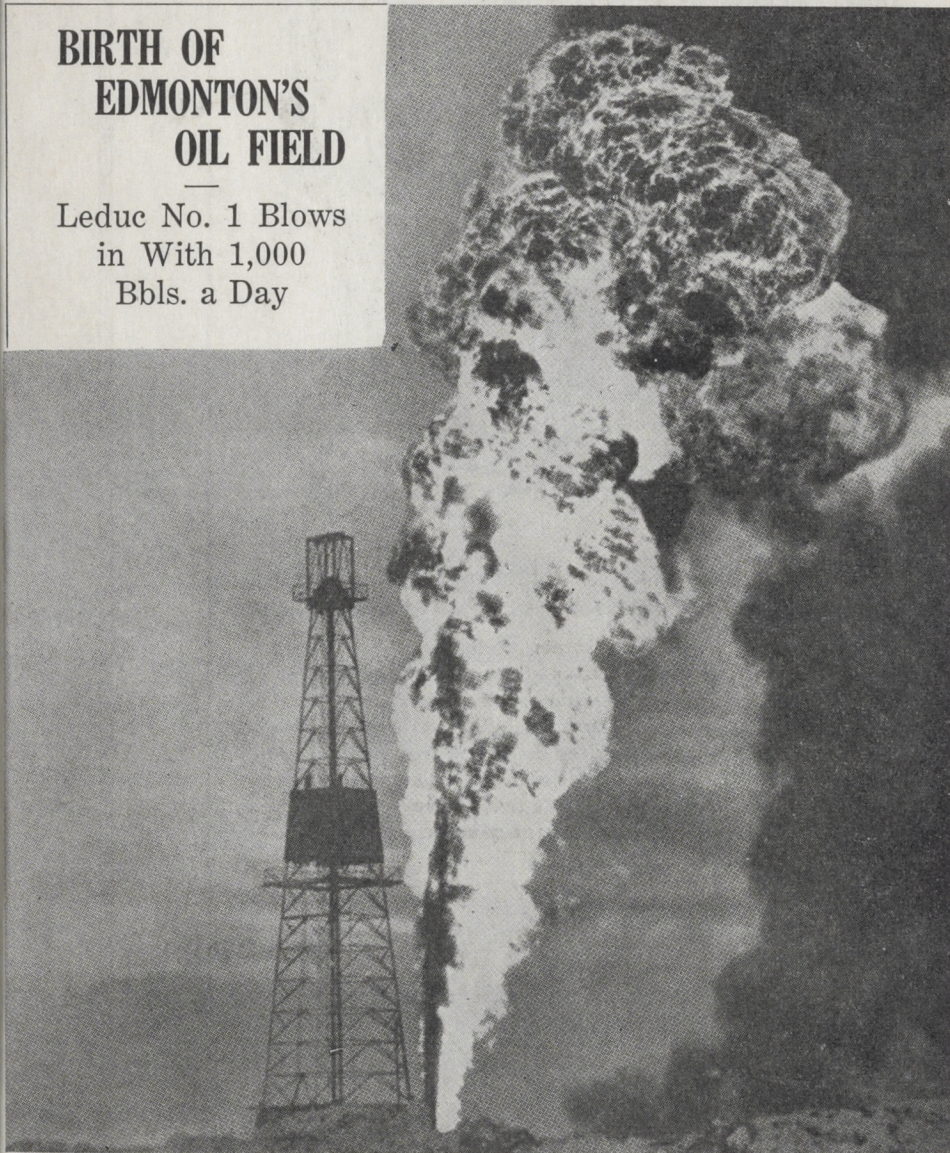
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Vol. XV  
No. 3

May-June  
1947

## BIRTH OF EDMONTON'S OIL FIELD

Leduc No. 1 Blows  
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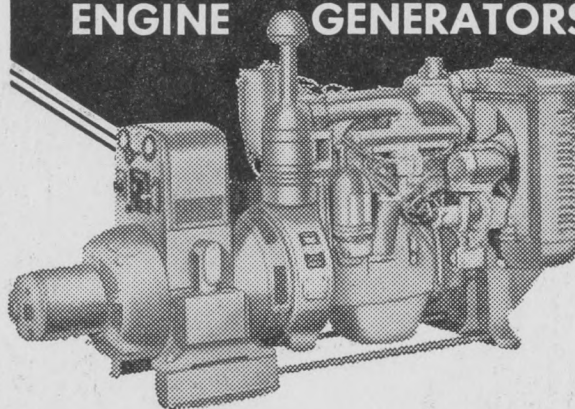


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# THE NOR' WEST MINER

EDITOR—F. S. WRIGHT

Devoted to development descriptive of the North West Territories, Northern British Columbia and the Yukon—Along the Trail of the Alaska Highway.

Published at Edmonton, Alberta—"The Gateway to the Far North and Alaska."

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## Says the Miner . . .

### WAKE UP EDMONTON

It is in all likelihood that a major oil field is on the way to development at Leduc. It is also possible that the discovery of this field will lead to the discovery of oil in other parts of the Edmonton district. No less than four wells have already been brought in, which, whilst controlled as to flow by mechanical means, are designated as 1,000 bbls. wells. A refinery and pipelines are now being planned and it is also stated that the Imperial will drill 21 additional wells in 1947. Oil minded Calgary and Vancouver are the first to realize that Leduc means greater oil production in Alberta. **Edmonton has hardly awakened to the fact that it is the centre now of an oil industry.**

What does such an industry mean to Edmonton? A close home example is Calgary with its Turner Valley. Calgary, apart from all else, has been built up on oil production.

Edmonton needs a Stock Exchange today. It needs more than that. It needs to wake up and get busy so as to get its share of all the huge benefits that go with oil production and operation.

Years ago Edmonton went "crazy" on southern oil booms. Today it has the real thing right at its door. The usual comment one hears on the streets is "the big companies have it all." Maybe they have plenty of chances. They are entitled to have them after expending enormous funds in prospecting, but there is still room for the other fellow.

In any case, the influx of an oil population to the district means more business for all . . . more work—more government revenue and perhaps an easier tax burden made possible by increased royalties.

\* \* \*

Edmonton is a most favored city. A brief review shows that in the district it serves it has more concrete possibilities for business growth and added population, than any other city on the American Continent. Radium ores—the most precious mineral of today—gold in the Yellowknife—timber and pulpwood in the Foothills. Huge farming areas surrounding it. The

Alaska Highway. Huge coal deposits. Natural gas and oil. A railway centre. Key air port on the world routes. Splendid location. Growing population. Government headquarters. University—and more. Has everything, in fact that must justify its bid of the future, if not the present, as the Key Centre of the West.



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# THE LEDUC OIL FIELD

By J. L. IRWIN

Department of Economic Affairs, Alberta Government

Alberta has once again taken the centre of Canada's industrial stage as a result of what is happening in the new Leduc oil field. If production continues as it has started, the field will become not only of great importance provincially and nationally but may also be regarded as international in scope.

Since the peak year of 1942, when Alberta's oil production passed the ten million barrel mark, a decline has set in. The great Turner Valley field which put Alberta on the world's oil map is growing old and production has started to drop. With the end of the war the totals from Norman Wells were sharply reduced with the closing of the Whitehorse refinery resulting in cessation of oil flow to that centre. Oil production from the remaining provinces of Canada was also declining.

The great need was for the appearance of a second major field. Fields outside the Valley were increasing in output but none of them came under this heading. Lloydminster made splendid strides and is still enlarging its activities but that too did not answer the problem. Now, within the last three months, comes Leduc. The field is some 18 miles south of Edmonton and 10 miles west of the town of Leduc. The first well came in on February 13th and came as a major producer. The discovery belongs to the Imperial Oil Company and with it the company immediately drilled new wells in that area. The territory was "wild-cat", unknown. It was thought at the time quite possible that several succeeding wells might be unproductive until the trend of the structure was determined. Instead of this happening, however, the first four wells, now completed, all proved to be in the major production class. Already a  $3\frac{1}{4}$  mile front is established. No. 5, an offset to No. 1, and only one quarter of a mile from the discovery well, would appear to be assured of production.

Production from No. 1 well to May 26th totalled 13,939 barrels. From the beginning this has been restricted and is operating at present through a 3-16 inch choke. Details of this production follow. It will be noted that certain days in each month show production shut down. This

was due to many reasons such as road bans caused by bad weather when transportation was impossible, testing or shortage of railway tankage cars.

## Leduc No. 1 Well Production

February .....	4,227 bbl.—15 days
March .....	4,860 bbl.—24 days
April .....	707 bbl.—9 days
May (to the 26th).....	4,145 bbl.—22 days
Totals .....	13,939 bbl.—70 days

Approximate average, 200 bbl. per day.

Co-operation was given by the Leduc Municipality which was of real value to the company in carrying out operations in the field. A gravelled road running west from Nisku to the wells is to appear, the cost to be borne by the Alberta Government, Leduc Municipality and Imperial Oil Company equally. In addition to this the municipality is improving secondary roads in the immediate neighborhood of the wells and signs are being put up for the guidance of cars.

The question asked everywhere is whether or not this is the second major field sought for so long. There is of course, only one way to answer it, and that is by conducting a drilling programme on a noticeable scale. This has already been organized by both major and independent companies and is to be carried out without delay.

Before going into further details regarding this new field it might be of general interest to touch briefly on search for oil in virgin territory and, when discovered, its relationship to the economy of the country in which it is found.

As this is an Imperial Oil Company discovery, and as this company has done a most extensive job in the search for this important product over a period of many years, it should be of interest to present their activities in this particular as an example.

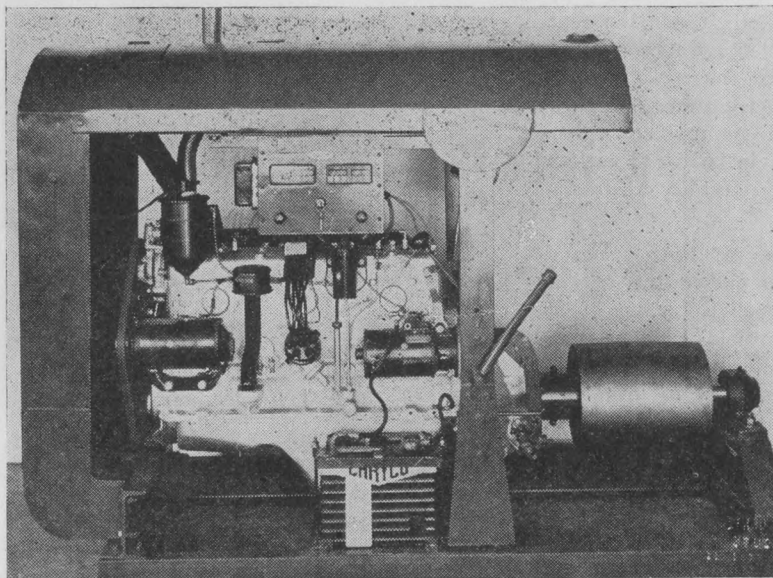
The search has been continued by them since 1917—a slow, difficult and costly business. Exploration and test drilling has added up to a cost total of \$23,000,000. Exploratory drilling has been done in the



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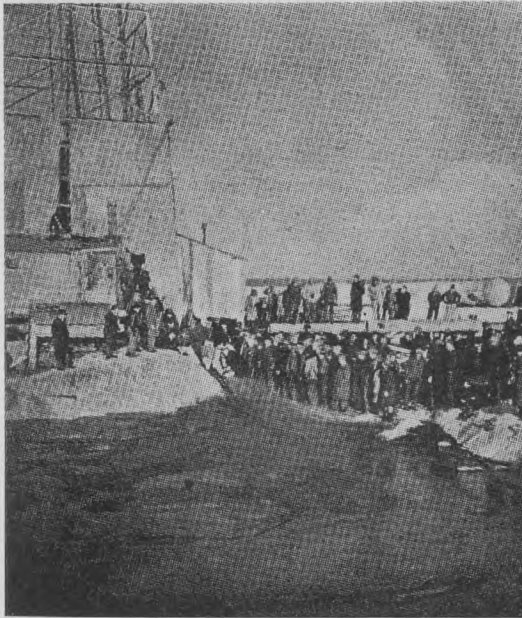
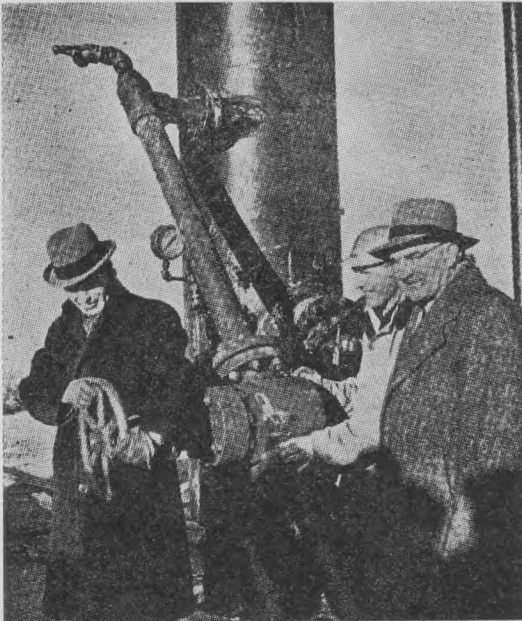
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case of 182 wells and a total depth of 170 miles has been drilled. Outside of Turner Valley and Norman Wells, Leduc represents the first promise of success.



Slightly less than one half of the geological work and approximately one-third of all seismograph work has been done by them. At present the company has eight geological parties, four seismograph units and one gravity metre party in operation. Costs for this side of the work are heavy too, for it takes \$15,000 a month to operate a seismograph party, and \$1,500 to \$2,000 a month for a geological party. Drilling costs range all the way from \$7 a foot on the plains to \$50 a foot in the deep foothills wells.

About 15 major and independent companies are now exploring for oil, and exploration in this respect is at its highest peak in the industry of Canada. The reason for this activity is that Canada has a definite oil supply problem. Roughly, only 10 per cent of our oil requirements are produced in the Dominion. Due to remoteness of many parts of the prairies area from adequate supplies of crude oil, very heavy transportation costs appear. Last year for instance only 14 million out of Saskatchewan's total requirements of 203 million gallons of crude oil came from domestic fields. The balance came in from the U.S.A. by tank car over distances ranging from 500 to 2,100 miles. The result



Upper right: Hon. N. E. Tanner, Minister of Lands, Alberta Government, turns the first oil from the new field into awaiting tanks. Also in picture are Vern Taylor, operations manager and Walker Taylor, western production manager, Imperial Oil Limited.

Lower left: Gas and oil pressure blowing mud and water into the pit as weight of drilling mud is lightened and Imperial Leduc No. 1 is ready to operate itself.

Left: Happy faces as S. R. Stevens, Imperial Oil marketing manager for Alberta, Mayor H. D. Ainlay of Edmonton and Vern Taylor enthuse over Leduc's possibilities.



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was that freight rates, which averaged about 1½c per gallon when Turner Valley supplied this area, rose to as high as 6.13c per gallon with an average of 5.43c.

The Leduc development has already made a noticeable impression throughout Canada. The president of the Imperial Oil, Mr. H. H. Hewetson stated in a radio address that if a major field materialized at Leduc it would benefit all segments of the national economy. Its significance, he pointed out, would mean an enlargement of the national income and when production reached a sufficient level it would make possible reductions in costs of products to prairie customers. This in turn would lower agricultural production costs.

Mr. Hewetson stated that the policy of his company would be to develop production at Leduc with all possible speed while still carrying on exploratory work elsewhere.

Other exploratory drilling being carried out by the company at present includes the well at the Muskeg anticline, about 200 miles north west of Edmonton between Entrance and Grande Prairie. Five companies in all will share in the expense of this which will be considerable, and is expected to exceed \$1,000,000. It will probably take about two years to complete on account of its remoteness. The other four companies, are Shell, McColl-Frontenac Socony Vacuum Exploration Co., and Gulf Research and Development Co. Other wells of the Imperial Oil company in "wild-cat" areas either started or about to start are Morinville, now down to 2,710 feet, Looma, 10 miles east and north of Leduc, Battle Lake adjoining Pigeon Lake west of Wetaskiwin, and Paddle River, 9 miles south and one mile west of Mayerthorpe on the railway line to Whitecourt, north-west of Edmonton.

Details surrounding Imperial Leduc No. 1 well as a major oil producer are given in the 1946 Alberta Oil Review. As stated, it came into production on February 13th. On May 21st, Nos. 2 and 3 wells were brought into production, No. 2 at six in the morning and the No. 3 at six in the evening. To bring in two major producing wells in the same field and on the same day constitutes a record in Alberta's oil history. No. 2 encountered salt water below the porous production zone. This of course had to be plugged off before bringing in the

well. Both 2 and 3 on encountering the same zone as No. 1 well found only slight porosity and went deeper, striking their production in a new zone where the porosity was more noticeable. No. 2 was completed at 5,410 feet, No. 3 at 5,313, and No. 4, which was completed on May 30th, at 5,352. No. 5 is at 3,638 (May 30) and is expected to approach completion within approximately the next 1,200 feet. No. 6 will begin drilling after completion of No. 4, using 4's derrick. Sites of the six wells are as follows:

Leduc No. 1—Lsd. 5, Sec. 22, T50, R26W4.

Leduc No. 2—Lsd. 1, Sec. 16, T50, R26W4. Approximately 1 mile SW. of No. 1.

Leduc No. 3—Lsd. 10, Sec. 26, T50, R26W4. Approximately 2 miles NE. of No. 1.

Leduc No. 4, Lsd. 16, Sec. 15, T50, R26W4. Approximately 2 miles S. of No. 1.

Leduc No. 5—Lsd. 8, Sec. 21, T50, R26W4. Approximately 1 mile W. of No. 1.

Leduc No. 6—Lsd. 1, Sec. 22, T50, R26W4. Approximately ¾ of a mile E. and ¼ of a mile S. of No. 1 and ¼ of a mile due N. of No. 4.

The above list are all Imperial Oil wells. In addition to these Leduc West, Globe and other independent companies are completing or have completed arrangements for a drilling programme in this new and most promising field.

There are many attractive features of the Leduc oil field. One is its accessibility to a railway and a main highway with Leduc only ten miles distant and Edmonton eighteen. If it develops sufficiently, it is presumed that pipe-lines will be laid to a refinery. With this short mileage they should present no problem. Production depths around 5,000 feet represent another encouraging factor in comparison with deeper fields. Drilling time is only from about two to three months and drilling problems do not appear to be outstanding. In addition to major volume of production is the apparent excellent quality of the oil produced. Gravity runs from 35° to 38° and even higher. Preliminary reports would seem to indicate a "sweet" oil free of sulphur. If a major oil field comes into being at Leduc, Edmonton should develop



# **\$50,000,000 FOR OIL DEVELOPMENT IN ALBERTA**

According to announcement by the President of the Imperial Oil Limited the company is contemplating an expenditure of at least \$50,000,000 in its program for developing the oil deposits of Alberta. It is stated that this program is dependent on conditions being favorable—both as regards future drilling success and equitable government regulations.

## **AN OIL REFINERY FOR EDMONTON**

The result of the success attending the

bringing in of the Leduc oil field has resulted in the Imperial Oil Limited obtaining a site for the erection of an oil refinery at Clover Bar near Edmonton.

## **WETASKIWIN LOOKS GOOD**

It is stated that drilling being carried on in the Wetaskiwin district by McColl Frontenac is showing slight oil porosity. The well is now down to 4,614 feet and it is stated that present indications are encouraging.

into an oil city with all that this implies in the establishment of subsidiary industries dealing in oil well supplies and also with the construction of refineries. These factors, all of which may materialize, are of considerable importance to Alberta's economy.

Before the year is out it is possible that markers will have become established to outline at least in a general way, the boundaries of the productive area of the field. It is too soon as yet to even guess at it but with the completion of all the wells that are now preparing to drill, some valuable information covering this will have been secured.

A vast productive oil area may lie beneath Alberta's surface awaiting discovery. That is the belief of many geologists. If this is so, the ninety million barrels of oil recovered in the past 32 year period may even fade into insignificance in comparison with recoveries of the future. The proof of it all can come only from the drill. In the meantime, after many disappointments, Alberta's oil industry is once more in the ascendant. There is not only hope of halting the production decline of recent years but also hope of improving eventually on the status we reached in our peak year of 1942. The passing of a few months will tell much of the story.

## **LATEST DRILLING DEPTHS**

Imperial Oil reports states No. 5 well in Calmar Leduc section is down to 4,199 feet.

Looma well is at 4,227 feet. Morinville well at 4,024 feet. Paddle River at 3,143 feet. Muskeg 2,839 feet. Battle Lake 647 feet. No. 6 Leduc 3,744 feet. No. 7 Leduc 2,295 feet and Leduc No. 8, 381 feet.

With the exception of the Leduc wells, the other operations are spread over a wide area.

## **Bill of Rights ... Alberta**

Alberta's Bill of Rights has received a family washing at the hands of the Privy Council to which the Alberta Government appealed the ultra vires verdict brought down by the Canadian courts. This \$600 a year promise is evidently just another Social Credit "carrot" held in front of the nose of the Alberta "donkey" to sustain this Utopian promising government in office. Is it not about time that Alberta citizens awakened to the fact that there are some things its government cannot do. Many a man has gone through the early phases of financing in the shape of trying to borrow money. He has spent much time making the round of various borrowing concerns, only to find that if he had expended the same time working he would have had no need to try to borrow credit. The Alberta government might do the same, namely get down to the work of encouraging production instead of making Alberta the laughing stock of the financial world.

The Three R's. At 25 Romance; at 45 Rent; at 65 Rheumatism.



## Gold—Canada's Lifeline

If indications read aright it will be only a question of a few years when Canada will have to fight real and earnest competition to hold its present markets in agricultural and industrial products. We can all be assured that \$2.25 a bushel wheat will not last for many years anymore than it did directly after the end of World War 1. At that time it taught nations that importing wheat they could not afford to buy was foolish. So they grew their own, with the result that Canada had huge surplus of this product and farmers got little or nothing for their efforts in producing it.

People say things are different today. In what way, might well be asked? It is true that a depreciated currency all over the world has brought "higher prices" but that does not mean anything when operating and other costs rise accordingly.

Canada has built up a tremendous manufacturing industry during the war years. It is an industry which even today has to compete as regards exports with all kinds of currency obstructions, and cheaper production. It has not the home market of sufficient size to enable it to meet world competitive prices by charging more at home than obtained abroad for the same articles. It is of course amply protected in the home market by high tariffs, which have enabled manufacturers to become rich at the expense of the Canadian consumer, but it must face, very shortly, strenuous competition abroad.

We can therefore plainly see the writing on the wall. Whilst the present good times in agriculture and industry may continue for a year or two, there will come the day when Canada will not be able to sell at competitive prices in world markets. What will happen then?

No government can continue to spend money the way governments are expending it today. Every dollar so expended has to come out of taxation and it is only a question of time when either a retrenchment occurs as regards public expenditures or inflation and the printing press arrives on the scene as it has already done in other countries. Canada, it is true can continue to persuade its residents to accept paper, but it cannot persuade foreign nations to do the same.

This is where gold steps into the picture

as the lifeline which can see Canada safe and sound when the crisis occurs. It has the gold in huge quantities at present unmined. It has produced nearly three billion dollars worth of gold from Confederation to the end of 1946. It is capable of producing still more billions in coming years if the industry receives the encouragement it is entitled to. The reverse has been the case up to the present. Instead of encouraging gold production by a rising valuation, the Dominion government has reduced the price some \$3.50 an ounce. It has restricted the market for saleable gold by the producer. It has used gold produced to balance its international trade, especially that between it and the U.S. The free production of gold is a must in future Canadian industry. It is the only medium of exchange that has no competition. It is the only medium of exchange that all nations will accept and Canada is fortunate in having it in quantity even if it is not yet mined.

An increase in the value of gold would bring hundreds of mines into existence with resulting increase in funds available for international settlement . . .

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### AD ASTRA MINERALS LIMITED

Ad Astra Minerals Limited is offering 300,000 shares of stock at 25c per share. Net proceeds to be expended on developing and diamond drilling its properties. It owns 60 claims, well distributed it is stated, over the Yellowknife field, selected by experienced prospectors. It is an airforce company as all the directors are former members of the RCAF. The company states that there are no promotion fees, no promoter's options, no promotion bonus and no watered stock. All funds, less broker's commissions and cost of incorporation are thus made available for field work. In addition no cash was paid for the properties the company holds. All shares issued for the same are held in escrow . . . Ad Astra Minerals Edmonton office is at 828 Tegler Building, Edmonton.

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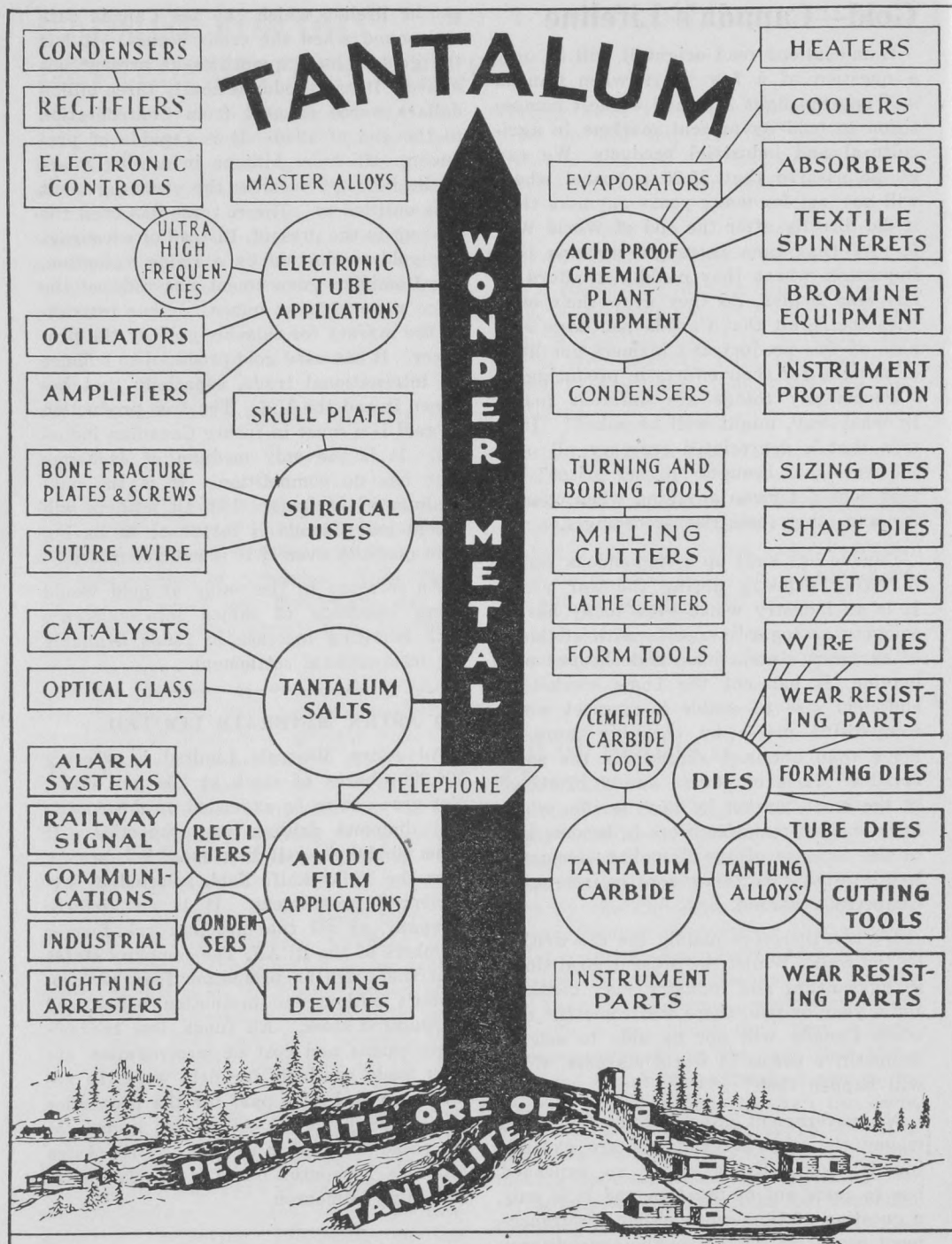
He went to buy a brassiere for his wife. He did not know the size. The friendly clerk tried to help him out.

"Are they about the size of grape fruit?" she asked.

"No, smaller," was the reply.

"Then how about eggs?" said the clerk.

"Yeah," he replied, "fried."



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## Tantalum and Beryllium Prices Increase

There has been a remarkable increase in the price of beryl and a strong demand for tantalite-Columbite has featured eastern mineral markets recently, states Mr. G. De Staffany, president of De Staffany Tantalum, Beryllium Mines Limited, who has just returned from a visit to eastern mining centres, including Montreal and New York. He states the increase is mainly due to new uses for these rare minerals and the accumulation of stock piles of the same. The price of beryllium has increased to \$18.00 per unit. Tantalum is now quoted at around \$160 per kilogram and Columbium \$560.00 per kilogram. Much interest, he stated, is being shown in the development of the Great Slave Lake deposits of these minerals as the field is now looked upon as being the main source of supply of these minerals for industrial and other uses.

The American Tantalum Refining and Mining Company has established a refinery at Edmonton for the purpose of treating concentrates from the Great Slave Lake field. This plant, which is under the able management of Dr. D. Gardiner, an international authority on the treatment of these metals, is most up to date and equipped with everything that is required for the economical and speedy treatment of the ore. Some of the first concentrates to be put through the process were from the De Staffany property and according to refinery reports the contents were of excellent quality as to tantalum content. This plant has been established mainly for the treating of ores from the Yellowknife District.

During the 1946 season in the North, further development has considerably extended the possibilities of obtaining greater production from the company's properties, states Mr. De Staffany. These properties are situated on the north-east shore of Great Slave Lake. The company expects to have a considerable tonnage of tantalite concentrates for shipment to Edmonton from its 25-ton daily mill situated on the Moose pegmatite dyke No. 2 during the 1947 season.

In addition four more claims, Ramona 1 to 4, have been staked for the company, making a total of 25 mineral claims.

The Ramona claims are situate about 30

miles northwest of the mill and include a pegmatite body which strikes north 80 per cent west, and is conformable with the bedding in the enclosing nodular greywacke of the Yellowknife group. Its outcrop is nearly 400 feet long and 12 to 55 feet wide with an average width of about 25 feet. Both ends are covered with overburden.

Spodumene is the most abundant mineral, occurring principally in crystals ranging from 1 foot to 10 feet in length and comprising about 30 per cent of the pegmatite, estimated to contain 750 tons of spodumene to the vertical foot. A five pound chip sample collected throughout the dyke analysed 5.70 per cent lithium oxide.

Beryl, amblygonite, and lithiophilite occur in minor amounts.

Tantalite was observed throughout the dyke, although lichen prevented close search. Only large-scale bulk sampling can determine the amount per ton. Specific gravity determinations on seven large samples averaged 6.76.

Mr. De Staffany states in connection with gold, that it is common gossip on Wall Street that there is to be an increase in the price of gold in the near future. He says, that it is expected that it will be increased to at least \$50 per ounce from the present price of \$35 an ounce.

## The Tantalum Refinery

It is announced that the Tantalum Refinery recently established in Edmonton for the treatment of tantalum ores from Great Slave Lake is to be closed for three months. This plant was recently completed under the supervision of Dr. D. Gardiner, the technical adviser to the Tantalum Mining and Refining Corporation.

Up to the present time, the work carried on at the plant has been more or less on a testing basis with a limited amount of tantalum concentrates being worked on. The smelting and recovery process is electrical and most successful according to reports. The plant is now perhaps being temporarily closed for the purpose of getting concentrates, treated at the Ross Lake Mill, in proper form for refining purposes. It is stated that the process followed there has to be rearranged to get the best results.

Dr. J. F. Wright, Canadian Geologist and a director of the corporation is now taking over from Dr. D. Gardiner.

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## Modern Hotel Service North of 53 . . .

The new Yellowknife Hotel, now known as the Ingraham Hotel, has just been officially opened. Old timers in the Yellowknife, when they remember the old days when the most comfortable accommodation was a sleeping bag on the floor have now a most modern and up-to-date hotel with almost every modern hotel convenience. Needless to say the sponsor of this real asset to the Yellowknife is Vic Ingraham.

Vic, already had a hotel in the Yellowknife and a good one at that, but he is never content and as Yellowknife goes ahead so does Vic Ingraham. He keeps just one step ahead. The new hotel was declared open at a banquet held in its splendid dining room and not only was Yellowknife present at this opening but many more from Toronto and Edmonton. Mayor H. D. Ainlay of Edmonton was the principal speaker and many other Edmonton business men were also present having flown from Edmonton to attend the celebration.

From all reports there was a good time had by all and so the Yellowknife has passed along another milestone. The newcomer need no longer bunk down in the old sleeping bag as in by-gone days. He can get a meal equal to any in the land. He can also see the Yellowknife mines and opportunities in comfort.

"Vic" as all northerners call him, also has other things coming up. He has visualized a telephone service for the Yellowknife. A company is now being formed and that is on the way. He is interested in many other northern projects and after many years in the North still considers the North as being the most favored spot in Canada when it comes to real opportunity. The hotel was built under contract by J. A. Buchanan, well known Edmonton and Yellowknife Engineer. His daughter, Mrs. A. E. Simpson, a graduate in architecture at the University of Alberta designed it in collaboration with Vic Ingraham. The dining room at the hotel is under the management of J. F. McDonald. Edmonton houses furnishing supplies for the new hotel were Pilkington Glass, Northern Electric Co., Hayward's Lumber Co. Ltd., Edmonton Paint and Glass Co., Blowey Henry Limited, Lockerbie and Hole Limited, Kingsway Lumber Co. Ltd. and others.



# Yellowknife Administrative District

## Annual Report for 1946

The Local Trustee Board of the Yellowknife Administrative District has recently issued its report on the District's administration for the year 1946. It shows a total assessment of the town and mines to be \$3,079,850. Revenues from all sources amounted to \$49,263.83 plus accounts receivable of \$16,211.33. Expenditures amounted to \$46,342.23, to which has been added accounts payable \$8,220.61 and reserve for uncollectable accounts \$10,912.32. 126 building permits were issued—value \$438,450.

### Assessment

Following are particulars of the 1946 assessment:

	Town	Mines	Total
Land	163,210		163,210
Improvements	498,515	947,502	1,446,017
Personal property	803,250	667,373	1,470,623
Total	1,464,975	1,614,875	3,079,850

Land was assessed at 100 per cent of value, improvements and personal property at 60 per cent of value.

### Revenue Other than Taxes

Beer Tax: 25 cents per case was paid to the district on beer sold in licensed premises. The amount received during the year was \$6,652.00.

Grant from Administration: The Administration of the Northwest Territories made a grant to the district for the purchase of trucks in the sum of \$6,000.00.

Business Licenses: 132 business licences were issued during the year. The amount received therefor was \$2,814.00.

Electrical Permits: The amount received for electrical permits during the year was \$215.00.

Dog Licenses: The amount received for dog licences during the year for \$71.00.

Fines: The amount received in fines for infractions of district by-laws during the year was \$14.50.

### Tax Receipts

Current Taxes: Taxes were levied for general municipal purposes at 4 mills to yield \$12,455.56 and for school purposes at 7½ mills to yield \$23,100.02; a total of \$35,555.58. Of these \$30,390.14 (85.47 per cent) was collected during the year.

Arrears of Taxes: Taxes (and penalties thereon) levied prior to 1946 and unpaid at the beginning of the year were \$2,849.98. Of these \$2,543.19 was collected during the year.

Poll Tax: Arrears of poll tax, levied prior to 1946 and unpaid at the beginning of the year were \$582.00. A poll tax of \$2.00 was levied during the year on 845 persons, to yield \$1,690.00. Of these \$564.00 was collected during the year.

### Summary of Receipts

Beer Tax .....	\$ 6,652.00
Grant from Administration .....	6,000.00
Business Licences .....	2,814.00
Electrical Permits .....	215.00
Dog Licences .....	71.00
Fines .....	14.50
Current Taxes .....	30,390.14
Arrears of Taxes .....	2,543.19
Poll Tax .....	564.00

---

Total .....\$49,263.83

---

During the year the Department of Mines and Resources expended approximately \$430,000 on the development of the District:

### Roads

Approximately \$81,000 was spent on roads with the advice and assistance of resident engineers of the Department of Public Works, the principal items being the Giant Road (\$13,500), the Crestaurium Road (\$18,500) and townsite roads (\$49,000).

### Docks

Approximately \$100,000 was spent on the development of dock facilities, to provide 300 feet of dock space with a minimum depth at dockside of 7 feet for barges and ships engaged in trans-lake shipping and for aircraft. This work was executed by engineers of the Department of Public Works.

### Airport

Approximately \$250,000 was spent on a second runway for the airport. This work was executed by engineers of the Department of Transport. Yellowknife airport now has two airstrips 300 feet wide and

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3,000 feet long and provides adequate landing facilities for land planes of any size in both summer and winter. During the year the airport approach road was completed and a radio range beacon for the guidance of aircraft was installed by engineers of the Department of Transport.

#### **Water and Sewer System**

Preliminary work was completed on the proposed sewer and water system which is to be built by the Department of Mines and Resources in 1947 at a total cost of approximately one million dollars. Temporary surface lines for water supply for the new townsite were laid during the year. During the year Mr. Allyn Richardson, senior sanitary engineer of the Department of Health and National Welfare made extended visits to Yellowknife to investigate the sanitation problem in the old townsite. As a result of his recommendations adequate standards of sanitation were established.

#### **Hospital**

Arrangements were completed during the year for the construction of a 40 bed hospital in 1947 at a cost of \$200,00 of which approximately \$67,000 is to be contributed by the Administration of the Northwest Territories.

#### **School**

Arrangements were completed for the construction during 1947 of a consolidated school. The cost of the school, \$150,000, is being contributed by the Administration of the Northwest Territories.

#### **Parks**

The following parks were established:

1. Franklin Park: Comprising block 70 lying at junction of Franklin Road and West Bay Road.

2. Petitot Park: Comprising blocks 52 and 53, adjoining the site of the proposed hospital, on the shore of Sand Lake.

3. McNiven Park: Comprising the draw between Franklin Road and Sand Lake at the south end of the lake. McNiven Park includes a level area suitable for a baseball diamond and sports ground, a sheltered well-treed area suitable for picnicking, and an excellent bathing beach. It lies approximately 2,200 feet from the townsite southwest along Franklin Road.

#### **Cemetery**

A new cemetery was surveyed and

brought into use, lying in a level, sandy well-treed draw between the Airport Road and Stock Lake, approximately 3 miles from the townsite. It contains 500 plots. Six interments were made in the new cemetery during the year.

#### **Roads**

**Airport Road:** The road to the airport at Long Lake was completed. Its length is 4.3 miles, measured from the intersection of Franklin Road and West Bay Road. It is gravelled, with a driving surface 24 feet wide.

**Radio Range Road:** The road to the Radio Range station was graded. Its length is approximately 3 miles, measured from Airport Road. It is passable in dry weather but still requires to be surfaced for all-weather use.

**Giant Road:** The road from the townsite to the Giant mine was completed. Its length is 3.5 miles. It is gravelled. The northern half has a driving surface 20 feet wide; the southern half has a driving surface 14 feet wide. In addition, the road from Giant No. 1 shaft north to Giant No. 2 shaft was completed. It is 1.5 miles in length. It is gravelled, and has a driving surface 20 feet wide.

**Crestaurem Road:** A road was built from Giant No. 2 shaft to Crestaurem Mine. It is 7.3 miles in length and provides access to a number of mining camps, including Akaitcho and Lynx. The southern five miles has been surfaced with gravel. The entire road is useable in all weather. The southern 5.5 miles has a driving surface varying from 14 to 20 feet wide; the northern 1.8 miles, which is built between rock outcrops and in narrow passes, has a driving surface varying from 8 to 10 feet wide, and is difficult for automobiles with low clearance.

**New Townsite:** Five miles of road was built within the townsite. Of these, two miles still require to be surfaced with muck and gravel and two miles with gravel only.

There are now approximately 37.1 miles of roads within the district.

#### **Scavenger System.**

As at the end of the year 240 premises were receiving scavenger service at a sliding scale running from \$4.00 a month for householders to \$25.00 a month for large commercial consumers.

The cost to the district of rendering

scavenger service during the year was \$12,-296.05. The charges made to consumers totalled \$14,225.50 against which deductions for defective service were allowed in the total sum of \$869.17 leaving net charges to the consumers in the sum of \$13,356.33. The operating profit for the year on the scavenger service was \$1,060.28.

Scavenger accounts receivable at the beginning of the year totalled \$1,619.59. Net scavenger accounts charged during the year totalled \$13,356.33. Scavenger accounts paid during the year totalled \$11,-394.37. Scavenger accounts receivable at the end of the year totalled \$3,581.55.

#### **Sewer System**

Preliminary work was done during the summer by the Department of Public Works, comprising drainage, trenching and surveying for the sewer and water system for the new townsite which is to be constructed during 1947.

#### **Water System**

During the summer months water was supplied to residents in the old townsite over a system of surface lines totalling 4,000 feet in length. During the summer a similar system was constructed by the Department of Public Works to serve the new townsite in 1947.

During the winter months water was supplied to residents by a tank system of delivery.

The cost to the district of supplying residents with water during the year was \$8,890.40. The fees charged during the year totalled \$7,276.50. The operating loss for the year on the water service was \$1,613.90.

Water accounts receivable at the beginning of the year totalled \$568.75. The water accounts charged during the year totalled \$7,276.50. Water accounts paid during the year totalled \$6,040.50. Water accounts receivable at the end of the year totalled \$1,804.75.

## **Yellowknife . . . And Its Beer**

Every year the same announcement comes out of the North "We have used up all the beer shipped in and shall have no more for another six weeks to two months." This situation arises not because the people of the Yellowknife and the North are particularly intemperate as to its use,

but simply because it is almost impossible to get cargo space to ship in the tonnage necessary. This beer is shipped in by the case, instead of in barrels.

During the days of Yukon mining activity in the 98's, a brewery was established at Dawson which was designed to overcome a similar difficulty. It worked out O.K. Why cannot a brewery license be given to operate a brewery to serve the North West Territories? There is every justification for such considering the fact that the nearest brewery is over 700 miles south. Of course the dries will immediately raise an outcry against granting of such a license—but if the N.W.T. Council, which seems to have the say in northern affairs did not favor a license being given to an individual firm, it might run a government brewery. The governments are now in most forms of business, especially the liquor business and beer is a part of that service which people have a right to expect from a monopoly.

There is no better water for making pure beer than that of the North. As regards the rest of the ingredients—they can be shipped in. Why not a brewery for the North?

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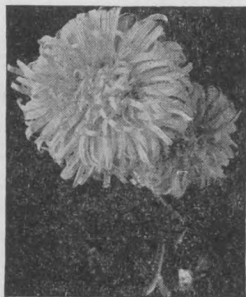
## Turner Valley Oil Decreases, Others Increase

Since 1914, Alberta's oil production has reached 90,324,551 barrels up to the end of 1946. Commencing with an output of 56,675 bbls. from 1914 to 1921, with only some 16,000 bbls. in 1922, ten thousand barrels in 1923 and 17,000 bbls. in 1924, the real production started in 1925 when the annual total was 180,885 bbls. From that date with no recessions the output of oil from Alberta wells steadily increased with the peak year being reached in 1942 with 10,136,296 barrels. Then the Turner Valley production commenced to drop and has been falling steadily ever since, the 1946 production being 7,137,693 barrels. This decrease has, however, been offset to a certain extent by the fact that other Alberta oil fields have shown increases. The combined increase from these fields was 132,742 barrels in 1946. Taber had an increase of over 70,000 barrels, Conrad some 68,000 barrels, Vermilion 54,000 barrels and Lloydminster 48,000 barrels, with smaller increases in other fields. The total value of oil produced in Alberta in 1946 amounted to \$14,348,069.

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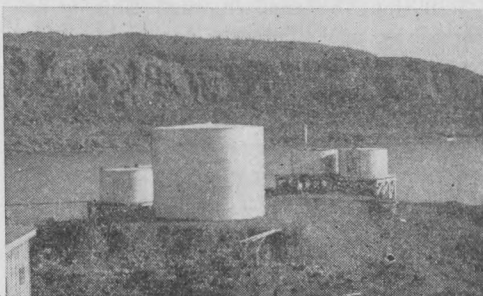
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## Back Door Defense

During the last world war, both Canada and the United States discovered that the most possible invasion area of the American continent was through the Arctic back door, Alaska and the North West Territories. People accustomed to viewing old time maps had ignored the fact that the shortest way from old lands to new lands lies across the "Top of the World".

Fortunately, the last war, whilst it gave military authorities many an anxious moment as to the defense of this back door, did not, with the exception of the Jap invasion of the Aleutians, materialize into an invasion of the American continent—but without a doubt the next war will.

Will there be another war? This is answered by past history. Invariably after every major conflict right down the ages, those who have had to bear the brunt of war's devastation have quoted "Nevermore". But there has always been another one and human nature has not changed to any great extent from old time attitudes.

Today, everyone is saying World War 2 must be the last. Yes—all will agree with that, but the wise man is the one who says, "Well, maybe—but in the meantime I am going to make sure of my defences."

The Arctic is the American line of defense, the vast stretches of the North the open door which must be shut tight. So ways and means of doing so are at present occupying the minds of those whose business it is to see that their nations are not caught asleep.

The North is a country of long distances—long boundaries—long days in the summer months and short days during the winter months. Roads and railways mean tremendous expenditures almost impossible to implement, but the North is unexcelled as regards its waterways. It has large rivers and lakes extending not only north and south but west and east. These waterways particularly lend themselves to connecting up by means of short roads, or canals and so a complete network of navigable waterways are possible.

Great Slave Lake is the centre of this huge water system. To the east rivers connect with the lake, which can be followed right through to the Hudson Bay and Fort Churchill. To the west the Mackenzie

River connects with the Arctic Ocean and the North. From Fort Rae on Great Slave Lake there is a possible waterway right through to Great Bear Lake. From there waterways also connect with the Coppermine River and the Eastern Arctic. To the South the Athabasca and Peace Rivers form almost ready-made waterways to connect with railheads at Peace River Crossing and Waterways, Alberta.

An aerial survey is now being made of the whole North and from that survey it should be possible to show how these waterways can be connected up either by roads or canals to form a complete network of interlocking routes throughout the North.

The Russians have already gone far ahead in making the utmost use of their waterways. Their major navigable rivers have been connected by either roads or canals making complete travel routes. It is possible to travel, with Moscow as the starting point, south to the Black Sea by water, north to the Baltic and Arctic Oceans and through Siberia to the Pacific Ocean.

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## Alaska Defenses

Any nation looking upon Alaska as the jumping off place to start another war will have to look at its hole card, if advices are correct as regards the defences of Alaska. It is stated that millions of dollars are being expended to make the territory a real "rod in pickle" for aggressors. The whole Behring Strait coast is being fortified and in addition air and other defence strategy are not being neglected. Enormous sums are being expended by Uncle Sam on this. Evidently the best slogan for an enduring peace is preparedness.

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### LLOYDMINSTER OIL FIELD

Starting in 1936 the Lloydminster oil field has increased its production from 348 barrels in 1939 to 270,035 bbls. in 1946. This oil is recovered at the shallow depth of around 1,900 feet and has a gravity of from 10 to 40 A.P.I. The number of producing wells in the field is now 44. In January, 1946, the number was 28. During 1946 16 more wells have been added to the production list.



## A Railroad to the Arctic

Explorer Vilhjalmur Steffansson has suggested that eventually a railway should be built north to the Arctic. He points out that such is a necessity for the proper development of the North. He states that increased transportation facilities will encourage the immigration needed to develop these remote districts. He suggests extension of the present railroad from the Peace River to Behring Straits, crossing the Mackenzie River north of Norman Wells. He claims that this would lead to rapid development of the various resources of the Mackenzie River basin comparable to the transformation of the Canadian west when the C.P.R. built from Ontario to British Columbia.

Such a suggestion will no doubt have many critics—especially railway critics who are content to leave transportation facilities as they are and instead of embarking on furnishing transportation first for immigration to follow expect the immigration to first locate in the good old ox-cart fashion of bygone days.

What has the North got to justify, Ex-

plorer Steffansson's suggestion? First, and really first, it is the back door—in fact the “Air front door” to the American Continent from a defence point of view. To move supplies and troops in quantity there must be railways. Then, it is the home of radium ore, which is now a focal attraction to the “have nots”. It has oil at Canol—here 24 producing wells have been drilled and capped awaiting future demands. It is known to contain huge deposits of base metals which can only be commercially worked and developed with cheap transportation. It has huge areas of timber lands. It has enormous lakes capable of establishing large fishing industries. Its tourist and scenic attractions are many. Its climate is nowhere near as bad as it is usually painted. No worse in fact than many points further south.

When the Canadian Pacific drove the steel across the prairies in 1885, the venture was looked upon as a terrible “mistake”. Cast your Canadian eyes over the west of today which that railway made possible, and then perhaps you will agree with Explorer Steffansson that even a railway north to the Arctic is possible.

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## New Lands to Explore

If you want to get away from it all this summer, here's a tip. The Alaska Highway will be open, so smarten up the old jallopy and get going. If you can't make it this year save enough to do it in 1948.

You will have a choice of two new highways in 1948, by the way . . . the Alcan and a new one now under construction. The latter will take you into the Great Slave Lake country, which is unadulterated frontierland in a very, very large way.

You'll have to start north from Edmonton, Alberta, and in the doing will see the finest wheat growing acreage (millions of acres, that is) in the world. Hundreds of miles of it, with rivers and lakes by the dozen thrown in. When you get to the headwaters of Hay river you'll see Alexandra Falls, a torrent plunging 360 feet over cliffs not greatly inferior to Niagara.

Having reached these falls you will carry on another 125 miles to Great Slave Lake, 800 miles from Edmonton. By this time you will have experienced something that very few people in this old world can even imagine. If you happen to get there at the right time you will see the sun drop behind the horizon at midnight and a few minutes later pop right up again. We have all read about it but never thought that we, you and me, would ever see it.

It was the dollars placed in gold mining stocks a couple of years back that made all this possible. Those dollars gave prospectors their chance to look the country over carefully and they found enough to make the world sit up and take notice. The two million dollars required to build the highway from Grimshaw to Great Slave Lake are just a flash in the bottom of Northwest Territories' pan. She has plenty of it. Perhaps you, yourself, own shares in one or more mining companies in frontierland. It will be great to run up and look it over.

Great Slave Lake, in case you are not interested in gold mines is about 360 miles long and 200 miles wide. Believe it or not, the lake contains hundreds of islands, from little ones to some, 30 miles in length.

It will be broad daylight 24 hours per day and a terrific change from the humdrum kind of vacation you have always had.

## Oil in Alberta

An American expert in river drainage systems once stated that the deposits of Athabasca Tar Sands were nothing more than huge sand dunes which were being constantly impregnated by an oil seepage from some large oil pool situated in the district between the Clearwater River at McMurray and the Peace River at the Peace River Crossing. His suggestion was that live oil was constantly flowing down well marked channels. Following out this theory it is interesting to note that Turner Valley-Leduc-Morinville, Perryvale, Pelican on the Athabasca River all line up as a possible oil channel, if it is true that oil deposits occur in similar fashion to underground water flows. Various catch basins trap the oil along the line of flow and the difficulty in oil prospecting is to locate these trapped areas. The Limestone formations in which the oil occurs, steadily comes nearer the surface as it goes north along its route from the Turner Valley. For instance its depth is roughly 9,000 feet at Turner Valley, 5,000 feet at Leduc, 1,500 feet at the Pelican and only 650 at the Clearwater. In 1915 drills put down by the Dominion government at Pelican uncovered a huge flow of gas. This flow was so strong as to blow the derrick to pieces and according to the report issued at that time, stones shot out of the hole like rifle bullets. Some of the oil companies have recognized these possibilities hence the drilling proceeding at Morinville, Perryvale and other spots along this line.

It is still quite within possibility that the eventual solution of the tar sand problem will be the discovery of this huge oil trapped area, as mentioned by the expert.

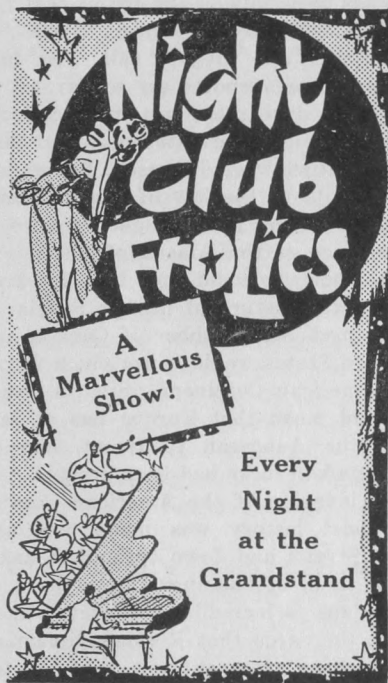
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## Salt Factory For Elk Point

A salt factory is to be built at a site  $2\frac{1}{2}$  miles from Lindberg where drilling for oil has uncovered a bed of salt over 1,000 feet thick in the three wells drilled by the owners. It is stated the plant will entail an expenditure of at least \$500,000. The companies interested are the Anglo-Canadian Oil Co., the C. & E. Corporation and Home Oils. The fact that there is an ample supply of water in close proximity to the deposit is an encouraging feature.



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## Who Owns Alaska?

It has been repeatedly suggested that Russia has been putting out claims that the sale of Alaska to the United States of America was an "illegal" sale. In fact some newspaper reports go so far as to suggest that during the last war "cocktail parties" of the big three the pros and cons of the situation were discussed. Possession is nine points of the law of the land and Uncle Sam having paid his good monies is the possessor of the Alaska of today. It was the most splendid buy that he ever made for the picture of having Russia as the near backdoor neighbor of Canada and the United States would cause much worry to the American Continent. Such a situation would mean that Europe has at last invaded the American Continent, and so another Balkan mess had been created.

Every invasion of the American Continent in past history was made over the Behring Straits and down through Alaska. To even think of handing Alaska back to the Russians is incredible. However, it is quite on the cards that Russian diplomacy thinks such an argument is a good one for the bargain table of international affairs. People who know Russians are no doubt familiar with the fact that they are not at all backward in asking for anything they see. If they are working for any one they are always looking for an opportunity to suggest "You do not need this, do you—let me have it!"

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# THE COAL DEPOSITS OF GROUNDHOG

By F. S. WRIGHT

There are the makings of establishing a real manufacturing centre at Prince Rupert on the Northern British Columbia Pacific Coast, where all the raw materials necessary for iron and steel manufacture are within easy reach.

The coal deposits of Pennsylvania made Pittsburgh one of the largest industrial centres in America. A similar occurrence of anthracite coal occurs in the Groundhog area of Northern British Columbia, some 123 miles north east of Stewart, B.C. and within 100 miles of the Canadian National Railway.

It has recently been announced that the government of British Columbia is making a survey of a route north of Hazelton, on the main line of the Canadian National Railway (Prince Rupert Branch) to link up with the Alaska Highway. This route will pass through these enormous coal fields which cover an area of some 2,000 miles.

Port Edward, a suburb of Prince Rupert, was originally set aside by the planners of the Grand Trunk Pacific as a site for rolling mills and steel manufacture. It was to be serviced with raw materials derived from the coking coals of the Telkwa Valley, with hematite iron from the Copper River where there is at least seven million tons ready to be steamshovelled and with the magnetite ores that abound on Porcher and Banks Islands a short distance from Prince Rupert. In addition the fact that real anthracite coals, going over 93 per cent in fixed carbon and equal to the best Pennsylvania or Welsh coals, was available rounded out the picture of this possible industrial centre.

Today, Port Edward or Watson's Island as it is now called has already had a huge celanese industry established which will employ thousands of men in the logging industry of Northern B.C. Its real claim for recognition is the fact that it is on tide water with good harbourage and the huge markets of the Orient are the possible outlet for its products.

All these facilities are within a radius of some 125 miles of either the railway or the waterfront of the port. Some may ask why, if this is true, nothing has been done over the past three decades to exploit this enormous wealth? The answer is possibly the fact that the iron and steel market of the Orient has been serviced in the past by the well entrenched combined interests of

eastern steel companies and railways who look for the long haul to make the most profits.

Thirty-four years ago, in 1910 and 1911, the Groundhog Coal deposits were surveyed by the late R. C. Campbell Johnston, M.E., who was at that time considered one of the leaders in his profession in British Columbia. These surveys were made at the request of Baron Rhonnda, the Welsh coal operator who at that time fully intended to tap this field by means of an extension of the Northern Alberta Railway via Fort Graham, the head waters of the Skeena and the Naas River to either Stewart at the head of Portland Canal or to Prince Rupert. At Stewart, the Mackenzie-Mann interests, the original owners of the Canadian National system, had already built some 12 miles of railway from tidewater to the foot of the Bear River Pass. This pass is only 2,000 feet above sea level, blocked by a glacier which was even at that time constantly receding.

To exploit these deposits it would be necessary, as Lord Rhonnda knew, to build a railway. At that time the country was almost unexplored and no one could visualize any other route but that from Peace River into Stewart, but surveys showed that between Hazelton on the Canadian National Railway and the head waters of the Skeena, the Naas and further on the Stikine and Klappan Rivers there was no divide more than 2,000 feet high, with the North Fork of the Skeena River forming a natural railway route right down to Hazelton, approximately 100 miles. In addition, by branching off the Naas River at the Indian village of Ayanish, there was a still better route up the Cranberry River and across to Kitsumkalum, or Terrace as it is known today, where once again the main Canadian National line could be tapped, just 80 miles from Prince Rupert.

Less than thirty miles of new line up the Copper River from Kitwanga at the foot of the Skeena River Canon would tap the hematite iron deposits on Summit Creek, and as for the coking coal necessary for smelters, there was an unlimited supply at Telkwa. In addition the various fluxes

necessary were available in enormous quantities right on the railway down the Skeena River.

This was the picture that Baron Rhonnda no doubt had in mind, and had it not been for the Balkan war which broke out in 1913, the forerunner of the great war of 1914, and the untimely death of Baron Rhonnda, there is no doubt that he and his associates would have made the picture come true. It was and is a perfect set-up for big industry. In fact even a refinery was to be established at Prince Rupert, a most important adjunct for the refining of copper and other ores prior to shipment to the factory. This is borne out by the fact that during the period a copper smelter was operating at Hidden Creek by the Granby Consolidated Mining Company. The copper matte obtained was shipped to the Eastern States to be refined. That is, it went to Pittsburgh and was there manufactured into commercial products, with Canada only getting the benefit of the labor involved in mining the raw material.

In 1911 and 1912, I made four trips into the Groundhog area for a Victoria Syndicate. We knew of these developments in the offing and firmly determined to get located on these coal deposits. We succeeded in staking 84 sections of these coal lands. The coal samples obtained had the usual steely grey quality of anthracite coal, would only burn in special stoves and samples we had analysed went over 90 per cent in fixed carbon with some 8 per cent of volatile matter and ash. This we knew was as good if not better than Welsh coal. In addition the coal was practically smokeless when burned, priceless at that time for naval use. Where we staked we found good clean seams of this coal where creeks had cut through the overburden and Mr. Campbell's estimate of a width of 70 miles north and south by 30 miles east and west is a conservative estimate of the field as we knew it.

Prospecting in those days was a hard task as compared with the modern methods of entering a field by means of aeroplanes, but it had the advantage of making one familiar with all the terrain passed over. We went into the field, from Stewart, climbing over the Bear River Pass to the Naas River (West Fork) and followed up that fork to where the Yukon Telegraph line cut it nine miles west of No. 9 Cabin, and then followed the trail down

to the No. 7 Cabin where we first staked for the coal which lies to the north of it. Others went in from Hazelton, following the telegraph line to No. 5 Cabin. This was the route followed by Campbell Johnston and others who staked at that time. The whole stretch of country north of the line between No. 5 cabin and No. 7 cabin were coal bearing lands. These cabins are roughly 50 miles apart.

The only method of travel was by foot. It was almost impossible to use horses and none were available so we back packed it. There were four of us in the party, and we started with 100 lbs. each. After crossing the glacier and reaching Meziadin or Bowser Lake as it is called today, I sent two men back home, and my partner Jack Huggard and myself continued on. In order to move our stuff we had to relay it, thus covering the same country three times. After staking we came down the telegraph trail to Hazelton and from there went to Prince Rupert. We had 84 sections of coal lands which we knew had every possibility of being good.

It cost \$100 a year per mile section to hold coal lands in those days. The syndicate held it for two or three years, then came the war, the death of Lord Rhonnda and the whole picture blew up as far as we were concerned.

What of the country we passed over en route to the field? Up the Naas River and the Skeena Rivers there is wide open country, with miles upon miles of fertile farming areas suitably mostly for ranching. In fact in 1911 and 1912, many thousands of acres of this land was staked by promoters who could get it by only putting up 50 cents an acre of the total price of \$2.50 an acre.

But to get back to the coal. It is there in huge quantities. Campbell Johnston's tests of it show it to go from 71.76 to 86.74 in fixed carbon—this covering 9 seams in all, with seams running from four to 20 feet in width. Volatile matter 13.51 in the lower grade seam to 4.0 in the higher grade seams, with ash averaging 9.0 and moisture from 3.5 to 4.5. Welsh coal goes around 85 fixed carbon with Pennsylvania going 83.97.

It should be borne in mind that there are very few deposits of anthracite coal on the American continent and so the market for the same is almost unlimited. Welsh coal has for years been shipped all over





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the world. Hong Kong, Australia, Chile and other Pacific coast points. Here the Groundhog coal can surely control the market owing to the comparatively shorter haul. Mr. Campbell recommended the Naas River route for a railway to connect with the Canadian National at Terrace. This would mean less than 100 miles of new construction. He also stated that it would mean an expenditure of some \$9,000,000 to complete the plan at that time.

The railways are complaining that freight rates are too low to ensure profits. These claims are based mostly upon the present tonnage they haul. The solution for this freight loss is surely increased tonnage and longer hauls and here there is a possibility of an enormous tonnage not only to be hauled to seaboard but also to furnish cargoes for freighters plying to the Orient. Great Britain obtained supremacy in world shipping trade by being able to send its ships abroad loaded with Welsh coal as ballast, thus carrying cargoes in the cheapest manner. The output of anthracite coal in Pennsylvania alone amounts to over 80,000,000 tons a year, whilst the Groundhog field as yet has not been estimated as to tonnage content. This in any case, must be enormous, if the known seams carry through, exceeding the eastern output by many millions of tons. It surely can be safely argued that the Groundhog coal areas present one of the best and finest methods of increasing Canadian wealth, railway freight tonnage and employment for thousands.

It is a well known fact that big industry bases its factories and industries as near the source of the supply of raw material as possible. Pittsburgh, the Ruhr Valley, and Wales bear this contention out. Here Canada has enormous reserves with everything necessary for the establishment of iron and steel mills, coal manufacturing plants and industries right on the seaboard with good wharfage and harbourage facilities. All that is required is vision, faith and capital to make the Baron Rhonnda dream of a coal empire on the Pacific Coast an assured fact . . .

---

Take your house number and double it—add 5—multiply it by 50—add your age—add 365—subtract 615—the last two figures will be your age—the others your house number.

## Diversified Shaft Down 175 Feet

Diversified Mining Interests (Canada) Ltd. shaft is reported to be now at a depth of 175 feet with the first level station cut. The shaft is to be continued down to 325 feet, where another level station will be cut. Around 2,000 feet of drifting, it is stated, will be carried out on the No. 1 Zone. Property is located in the Indian Lake area of Yellowknife. Work in sinking the three compartment shaft was started in April and notwithstanding the fact that its supply line was 140 miles long, the work was done to the present depth in record time.

---

## ANOTHER MILLION GOES DOWN THE SINK

A few years ago—war years—someone at Eldorado Mines conceived the idea that it was possible to build a road from the mouth of Great Bear River to Fort Franklin on the west shore of Great Bear Lake and so avoid the many water transportation changes necessary in negotiating the Bear River. Previously a well built nine miles of road around the rapids had answered the purpose. The first estimated cost of the new road, it is said, was \$400,000. The eventual sum which has been expended amounts to a million or more dollars. Today it is stated, the road is being discontinued and the machinery removed to the Yellowknife.

---

The famous psychologist completed his lecture and asked for questions. One little man got up and said, "Doctor, did I understand you to say that a good poker player could successfully handle any kind of an executive job?"

"That's exactly what I said," replied Doc.

"Tell me then, said the little man, "What would a good poker player want with any kind of a job?"

---

She thought she recognized her husband on the street car, and suddenly, leaving her seat, she went up and put her arms around him. Aghast, as he turned, she found he was another man—a stranger.

"Pardon me," she explained, "but you see, your head looks exactly like my husband's—behind."



## Beaulieu To Increase Operations

President Hal J. Hutchings announces that Beaulieu Yellowknife Mines at Yellowknife is to sink a three compartment shaft to supplement the present two compartment shaft which is down to 175 feet. This is being done to enable the company, he states, to carry out a program of further development and start production early in August. It is expected that Beaulieu will start production at the rate of 100 tons a day. The sinking of the new shaft will be carried on in conjunction with the building of a larger mill. He also states that further surface exploration and sampling is being undertaken on the recently discovered extension of the Norma vein which is now being developed for production. Mr. Hutchings and the vice president, Mr. S. Ciglen are both in Yellowknife viewing the property. Mr. Hutchings states that the vein carries much visible gold at various places. (Canadian Mining Review.)

## GOVERNOR GENERAL GOES NORTH

It is announced that Viscount Alexander, Governor General of Canada is making a trip to the North this summer. He is dated to arrive in the Yellowknife on July 28th and 29th next. The tour, it is stated, will include Fort Smith, Fort Radium and Norman Wells as well as the Yellowknife. He will be accompanied on the tour by Major General Letson, Air Vice Marshall Guthrie and Captain David Lloyd Thomas, aide de camp to his Excellency.

And then there was the Indian girl who had a lot of fun with her beau and error

...

## Canol Pipe Line Sold

The U.S. Government has sold the pipe line extending from Canol to Whitehorse for the sum of \$700,000. This line cost \$9,000,000 to build. The purchasers were a Cleveland, Ohio outfit. What use will be made of it is not known.

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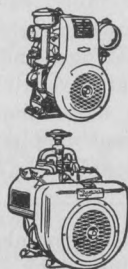
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## R. B. Bennett

Viscount Bennett of Calgary has passed away and with his demise Canada loses one of its most outstanding citizens. He was one of the most active political leaders in the West when the business of politics was a real live issue. He was a real fighter in those days, neither asking or giving political quarter and many was the battle he engaged in on the hustings of Alberta as he climbed his way to the Premiership of all Canada. In those days they called him "Bonfire" Bennett. He earned this name at a meeting in McLeod in Southern Alberta. It was an open air meeting and as Bennett was holding forth on the questions of the day, some of his opponents crawled under the platform and set it on fire. This did not stop him. He still continued his fiery attack unabated. His whole life was devoted to the interests of Canada both at home and abroad and he was, without a doubt, one of the greatest men that Canada has ever produced.

A cultured woman is one who, by a mere shrug of her shoulders, can adjust her shoulder straps.

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## Make No Little Plans For Canada's Future

"Make no little plans for Canada's Future" were the words spoken by Walter G. Attridge before the Montreal Board of Trade in February, 1944. "For Canada is on the threshold of a great and challenging opportunity when this war is ended. The need is there, the time will be ripe for vast, unprecedented development . . . Let us plan courageously when considering Canada's future."

All Canadians will agree with his statement, the words of a man who clearly visualizes a real future for Canada. He is not the only one. The Hon. W. Howe, the Minister of Reconstruction, the Hon. J. A. McKinnon, Minister of Trade and Commerce, who represents Edmonton in the House of Commons, both have claimed that today is the time of Canada's opportunity to grow in wealth and substance. These men know that Canada in order to attain its objective must have population increase in the millions. Its present 11 million people cannot do it all. It must have home markets, instead of having to rely on export markets which are invariably governed by equitable exchange of goods. That is, no nation is going to buy from Canada if it cannot also sell to Canada. More people make home markets and do away with the need for export markets to a great extent.

However, the fact that the railways of Canada must play a most important part in this new planning for Canada's future is a matter which has been greatly overlooked, especially by the authorities directing the railway business of Canada. These men seem to consider that a railway should follow population instead of acting as the bringer in of population. In the early days railway development made development of the west possible. Had it not been for the building of the first transcontinental across Canada, the west would still be in the "Indian" stage. The United States is an excellent example of what railways meant to development in its early days of acquiring population. In a 100 years it has acquired some 145 million people occupying an area less than that of the Dominion of Canada. It has not only drawn population from all parts of the world but has also, and still is, drawing the cream of Canada's population to its centres.

Competition is the life line of a railway. Competition is the source of all development. There is no railway competition in Canada today, outside of the lines which have to meet American competition in the East. The railways having established two lines between Halifax and Vancouver with a few branch lines covering almost the same territories now say, "Yes, we will build more lines when there is population to carry the venture." That is they insist on having population use the old oxcart method of settling before they will venture on new extensions.

At the present time these railways are seeking an increase of 30 per cent in freight rates. This increase is to be extracted from the present population of Canada, mostly from western sections, and what this increase, if granted, will do to the economy of the west must make Canadians shudder with anxiety. Instead of making large plans for Canada's future—these railways seemed determined to be content with little plans.

Branch lines, say the railways are not profitable. Therefore there can be no branch lines. One in particular affects Edmonton and the north. Under the Northern Alberta Railway lease act, this line was to be extended to the northern boundary of Alberta by the year 1935. It is now 1947 and there has been no extension as agreed upon. There are many other instances where the railway authorities have claimed that until there is population ahead they cannot extend.

Freight rate increases cannot answer the question—active rail development can.

---

Boss (after dinner): "And now, my dear, how about a little demi tasse?"

Blonde: "I knew it. You weren't treating me like this for nothing."

---

Look out for the friendly gal  
Who loves her beer and rye,  
You may not know it, pal  
But she'll make you buy and buy.

---

Bankruptcy is the art of putting your money in your hip pocket and allowing the creditors to take your coat.

---

The absent minded office manager pulled the typewriter down on his knees and began to unfasten the ribbon . . .





## NOTICE TO CREDITORS AND CLAIMANTS

In the Estate of **WALTER PATTERSON**, late of Yellowknife in the District of McKenzie, North West Territories of Canada, deceased.

NOTICE is hereby given that all persons having claims upon the estate of the above named Walter Patterson, who died on the 25th day of August, A.D. 1946, are required to file with the undersigned Administrator by the thirty-first day of August, A.D. 1947, a full statement duly verified by statutory declaration, of their claims and of any securities held by them, and that after that date the Administrator will distribute the assets of the deceased among the parties entitled thereto, having regard only to the claims of which notice has been so filed or which have been brought to his knowledge.

Dated this 20th day of May, A.D. 1947.

**H. MILTON MARTIN**,  
Administrator of the Estate of  
Walter Patterson, deceased.  
721 Tegler Building,  
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Leave Edmonton, Alta., 4:00 p.m.

Arrive Grande Prairie, Alta., 5:45 p.m.

Arrive Fort St. John, B.C., 5:50 p.m.

Arrive Fort Nelson, B.C., 7:55 p.m.

Arrive Watson Lake, Y.T., 8:55 p.m.

Arrive White Horse, Y.T., 10:50 p.m.

Arrive Fairbanks, Alaska(1) 1:50 a.m.\*

Arrive Prince George, B.C., 7:20 p.m.

Arrive Quesnel, B.C., 8:05 p.m.

(1) Arrives day after departure.

(\*) Monday, Wednesday and Friday only.

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Stony Rapids, Saskatchewan.

Waterways, Alberta.

Wrigley, N.W.T.

Yellowknife, N.W.T.

He was in court charged with theft. His lawyer claimed that in using his right arm to remove the articles, his client was not responsible. The judge smiled and said. "In that case, I sentence his right arm to three months in jail. He can go with it or not as he pleases."

The client unscrewed his cork arm, laid it on the table and walked out.

They were gliding along smoothly in the car. It was a lovely night. Suddenly she exclaimed: "John, can you drive with one hand?"

"You bet," replied John.

Then she said, "You had better wipe your nose—it's running." . . . and the moon still shone on high . . .

Politics: The art of extracting money from the rich and votes from the poor on the pretext of protecting the one from the other.

When Jones' little girl was born,

She set their hearts a-flutter,

They named her Oleomargarine,

For they hadn't any but her . . .

A kindly clergyman as he pinched a little boy's knee asked, "Who has nice chubby pink knees?"

"Betty Grable," replied the little boy.

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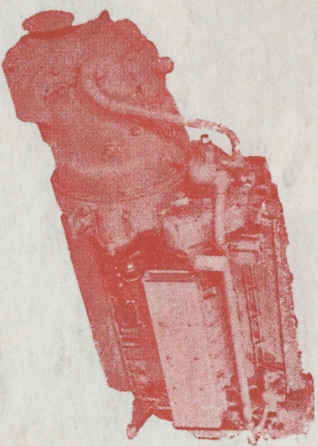
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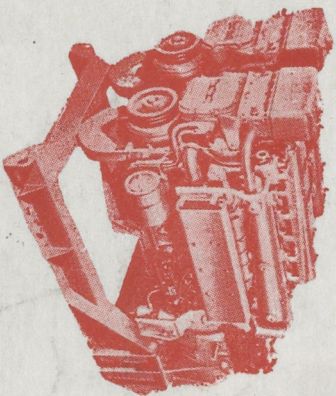
43 to 600 H.P. for Marine and Industrial Use

Minimum Weight — Maximum Torque

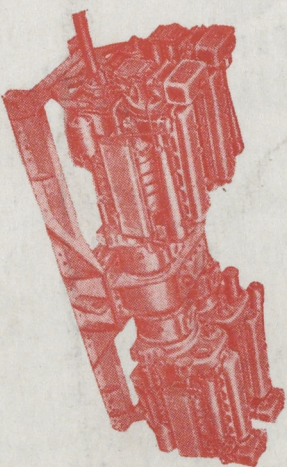
"SINGLES"



"TWINs"



"QUADS"



*Literature and Prices on request*

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